which a lion, 21 feet long, and made of one block of marble, is placed.

The Bridge of Fochou over the Min, in China.—Conjointly with the latter, the largest in the world, constructed in a simple, grandiuous style, similar to that of the best Roman structures. Its length is stated at 22,000 feet by 60. It consists of 100 arches, of a perfectly semicircular curve of 120 feet span. The pillars, nearly as broad as the span of the arches (about 100 feet), have no top ramparts, and are sixty feet above the level of the water. The complete open width of the arches is, therefore, 120 feet, and the height 150 feet, so much so, that ships with all sails set (Chinese *junks*) can pass through. The parapet is of white marble, with Chinese ornaments, and reposes on a simple and beautiful cornice, which is supported by runners. On the top of the parapet, lay, on both sides above the pillar, lions of black marble, 21 feet long, hewn of one piece; and at the distance of every twentieth pillar, a triumphal arch is spread over the bridgeway. This stupendous work is constructed of blocks of white stone, 24—28 feet long, by 5 feet in thickness.

The Bridge of Menamhum is remarkable by the shape of its pillars, whose sides are steep like Gothic ones, with rounded tops. The length of this bridge is above 2,000 feet. It belongs to the bridges with mixed arches. The main arches are 20 feet high, and 24 broad, and alternate with arches of circular form, 49 feet broad.

The Bridge of Foo-hiang-hien, in the Tshekiang,—is remarkable for its likeness to the style of Roman bridges, especially with that of the Pons Janiculus, in Rome. Its length is about 150 feet. It consists of three semi-circular arches, of which the middle one may be 40 feet, the two outer ones 27 feet in width. The pillars, about 10 feet broad, are furnished with ornamented capitals, which end in the form of equilateral triangles. The spurs are very strong, and project far in the stream. On each side of the middle arch, between it and the shank of that adjoining it, is an opening in the shape of a semicircular arched-over passage, just as at the ancient Pons Janiculus. The whole bridge slopes down very steeply towards the two banks of the river, in form of a flat circle.

The new bridges of China are either of stone or of brick and wood, and not conspicuous for either boldness, design, or durability. J. L——y.

THE PARTHENON ILLUSTRATED AT THE BRITISH MUSEUM.

In a recent number we described Mr. Lucas's able model of the Parthenon restored,* just then completed and purchased by the trustees of the Museum for the illustration of the Elgin gallery. We have now the gratification to mention that a second model of this wonderful building, by the same artist, representing the temple as it appeared immediately after the explosion in 1687, when the Athenian Acropolis was besieged by the Venetians under Morosini, has been bought by the trustees. In this model nothing is introduced that is not perfectly authenticated, and we have a faithful transcript of the temple as it appeared in its most melancholy aspect. The presence of these two models has altered the character of the Elgin room, and quadrupled the value of its contents, in an educational point of view. The immortal sculptures there deposited, formerly disjointed fragments, hardly to be understood by the multitude—are now brought into one whole—and the spectator in the degree that he comprehends will appreciate.

The models are at present screened from public inspection, but will be thrown open after Christmas, when our readers should pay them an early visit. The length of each model is 12 feet, not nine, as stated in our first notice.

French Steam Hammer.—At the Paris Academy of Sciences, M. Morin described a steam hammer which was shown at the last exhibition of National Industry. From the account given in the French papers, it is an exact counterpart of Nasmyth's, which we have on several occasions noticed.

* P. 593, *ante*.

ASSERTED ABUSES IN WESTMINSTER COURT OF SEWERS.

REPLY TO MR. LESLIE'S PAMPHLET.

On page 375 of the present volume of our journal, will be found some extracts from the letter addressed by Mr. Leslie to the representative vestries, charging the Westminster Commission with misconduct. Sir James Graham, our readers will remember, forwarded a copy of this letter to the commissioners, and required a reply. A committee to draw up the reply was appointed—consisting of Mr. Alderman John Johnson (the Lord Mayor), Messrs. Willoughby, H. Harrison, T. L. Donaldson, W. Hawkes, Frederick Crace, and John White,—and their report is now before us. We shall allow the commissioners to speak for themselves, as we did Mr. Leslie, and let the public judge between them.

The report commences by objecting to the interference of the vestries, and asserts that they have no more authority to discuss the management of the sewers-rate than the Sewers Commissioners have to question the disposal of the poor-rate by the vestries (?)

It continues: — "The pamphlet takes a range for its observations of nearly forty years, and combines sweeping allegations with some particular statements, and much personal imputation, and though there remain but eight acting commissioners of the early period, and the great body are of modern appointment, they are called upon to investigate the acts of their predecessors, many years after the decease of the able and honourable chairman, as well as of the clerk and other officers, under whose respective authority and care the business was then conducted.

We cannot but think that the time of the court, and of your committee, might have been more justly, as well as usefully, passed in discussing present improvements, rather than past transactions."

The report denies that the commissioners are self-nominated. With respect to the *responsibility* of the commissioners, it says: "it may be shortly stated, that it is the same as with other courts, their proceedings are subject to the review of all the courts in Westminster Hall; and the law reports, as well as the records of the court, will sufficiently establish the fact that they are frequently made responsible. The commissioners, acting always collectively as a court, can, indeed, only be dealt with as a court, but individual misconduct, at all times, subjects the particular commissioner to the Chancellor's *supersedeas*.

It is important to bear in mind the constitution as well as actual composition of the Westminster Court of Sewers, in considering its individual members. The qualification of a commissioner is a freehold, and the commissioners are the representatives of the freeholders of the district whose property is subjected to sewers-rate. The choice of commissioners is, indeed, vested in the Crown, through the Lord Chancellor, as that of all justices is, because the commissioners have judicial functions to exercise; but they are not less the representatives of the freeholders on that account, and practically the commission has always embraced the great and principal proprietors of the district, as well as the professional and mercantile classes, so that the commissioners actually comprise the great proportion of the landlords within the limit of the commission; whilst in order to secure a due regard to the interests of the great proprietors, their chief professional agents (being also freeholders) are generally added to the commission."

"With respect to commissioners unduly pressing on the court their own interests, it must be remembered that it is the interest of the collective body to act on general principles, and that, in so large a number of commissioners, individual wishes are certain of being counteracted by the general sense, and it is practically found that the pressing of such individual interest defeats the very object intended."

"With respect to the allegations of the contracts being a long time in two families, it may be, in the first place, observed, that sewer work is a peculiar description of construction, and was more so formerly than since the introduction of railroads. That it requires a suitable plant and a class of workmen accustomed to the varieties of soil, and the difficulties of springs, &c.; and it is obvious that parties once efficiently provided for such operations would do the work cheaper and better, and with greater dispatch than ordinary builders."

"In page 5 of the pamphlet, complaint is made that the sewer across the Marquis of Lansdowne's garden cost 6,637*l.* 2s. 3d. Now the facts of this case deserve particular attention, not only as illustrating the advantage of employing permanent contractors in sewer work, but the occasional results of public advertisements for tenders.

Tenders for this work were received from Messrs. William Stewart, John Jones, and John Hughes for 12,700*l.*, and from Mr. William Whitehead for 8,798*l.* which so far exceeded the estimate of the surveyors that they were rejected by the court, and the work was eventually done by Messrs. Bird, their ordinary contractors, for 6,637*l.* 2s. 3d., including all extras.

With reference to the second allegation on the contracts, the point for consideration is, whether the tenders accepted were not the lowest, and if not, whether they were not preferred for a substantial and sufficient reason. In 1830, 1833, 1836, and 1841, the tenders accepted were the lowest; in 1822, Messrs. Bennett and Hunt's tender was preferred to Mr. Mansfield's; and in 1826, to Mr. Sowter's.

On referring to the minutes and proceedings of 1822, which are extracted in the Appendix No. 5, it will be seen what pains were taken by the court to obtain not only a respectable contractor, but the best materials. The pamphlet would lead the world to suppose, that the rejection of Mr. James Mansfield's sample of bricks was a sudden subterfuge to get rid of his tender: it will be seen that the bricks had been the subject of the court's especial care at the previous meeting, and that Mr. James Mansfield (who by the way was not of the firm of Wigg and Mansfield) 'having again produced such a sample of bricks as the court would not allow to be used on the works of the sewers,' his tender was not accepted, and Messrs. Bennett and Hunt's, being the next lowest, was accepted.

The question here is simply this, whether the allegation on the records was true. We should say, on the face of the whole transaction, as set forth in the Appendix, it manifestly was, but we have the express authority of Mr. Dowley, the surveyor at that period, for saying that the bricks offered by Mr. J. Mansfield were not 'such as the court would allow to be used on the works of the sewers,' and thus all the calculation of the pecuniary result of declining a lower tender with such materials at once falls to the ground.

In 1826, it will be seen in the Appendix No. 6, that Mr. Sowter had omitted from his calculation, 'the carting away of superfluous earth and rubbish.' Mr. Sowter not having, therefore, provided for an important item of work, his tender was rejected, and Mr. Dowley informs us that he has since ascertained that there was a similar omission in Mr. Mansfield's tender.

Now, here Mr. Leslie makes a self-contradictory statement, 'that Mr. Sowter knew well that more than three-fourths of all the superfluous earth and rubbish dug out of the trench are thrown again into the trench, and had not to be carted away.' But the fact is, what is thrown back into the trench is not superfluous: when a new sewer is built, or an old one enlarged, the space occupied by the new work displaces so much of previous earth and rubbish, and this constitutes the superfluity which must all be carted away, and which must in every such case form an important item in the estimate of labour. On the face of the minutes, it is obvious that Mr. Sowter had discovered the error of his calculation, and did not press his tender. The lowest perfect tender was again therefore accepted."

"It only remains in this place to consider the mode of obtaining tenders. There are two ordinary ways of effecting it—the one by public advertisement, inviting every one that chooses; and the other, by a selection of a few responsible and respectable parties, and writing to them individually.

The chief object of the first course is to obtain the lowest bidding.

The latter seeks first by selection to have the security of character, experience, and capital, that the work will be carried on to completion in a substantial and workmanlike manner,

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